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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,771	06/24/2005	Toshiro Kinoshita	970.1012	7143
21171	7590	12/17/2009	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			HIGGINS, GERARD T	
			ART UNIT	PAPER NUMBER
			1794	
			MAIL DATE	DELIVERY MODE
			12/17/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/540,771

Applicant(s)

KINOSHITA ET AL.

Examiner

GERARD T. HIGGINS

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 14 and 15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 14 and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date 07/24/2009
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The amendment filed 09/10/2009 has been entered. Currently claims 1-4, 14, and 15 are pending and claims 5-13 are cancelled.

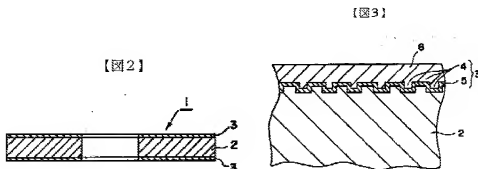
Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

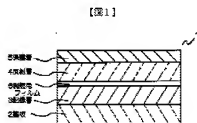
3. Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Otomo (JP 2000-011448) in view of Ota (JP 2000-030302), machine translations included, as evidenced by applicants' admissions.

Otomo teaches the invention of Figures 2 and 3.



Otomo teaches that polycarbonate in the substrates of optical recording media are harmful for the environment [0002]. He plans to rectify this by making the substrate of the optical recording medium out of biodegradable resins [0005] and [0006]. He teaches that a biodegradable resin include polypropylene [0009] or BIONOLLE [0010], which are also proposed in applicants' specification. The optical disc **1** has a substrate **2** of biodegradable resin and a recording layer **3** formed on both sides of the substrate [0018]. The recording layer **3** has a base material layer **6**. Otomo teach that the base material layer **6** is formed using the same plastic material as the substrate **2**. Applicants state in their specification at page 9, line 20 to page 10, line 4 that the non-hydrophilic film is preferentially composed of the same types of resin that is in the biodegradable substrate layer; therefore, the base material layer of Otomo is deemed to be made from an intrinsically non-hydrophilic (i.e. hydrophobic) material; however, Otomo fails to teach a protective layer for protecting the recording layer and a release layer provided between the substrate and the recording layer.

Ota teaches the device of Figure 1.



The device has a release layer **6** disposed in between the recording layer **3** and a protective layer **5**, which reads on the substrate of Otomo and applicants [0014].

Since Otomo and Ota are drawn to optical recording media; it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the release layer of Ota in between the substrate and recording layer of the medium of Otomo. The results of this combination would have been completely predictable to one having ordinary skill in the art of optical recording media; further, each of the components would perform the same in combination as they did separately. A further motivation for combining these references can be found in Ota at [0021], which discloses that the release layer provides an extra level of security, wherein the information of the optical disc can be completely destroyed at the time of disposal; further, one of ordinary skill would recognize that this would allow for separation and potential recycling of the individual layers of the optical recording medium.

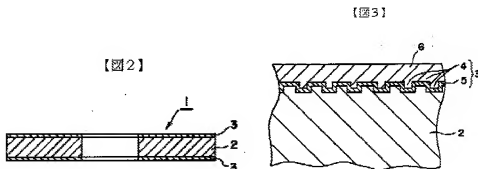
With regard to the addition of an adhesive layer in between the substrate and the recording layer, this would represent a mere duplication of the release layer **6** of Ota that was combined into the device of Otomo. It has been held that "mere duplication of parts has no patentable significance unless a new and unexpected result is produced." Please see MPEP 2144.04 and *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). Ota describes their release layer as being a double-sided adhesion film [0016]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to duplicate the film **6** for exfoliation, which reads on both applicants' adhesive layer and/or release layer, in order to adjust the amount of adhesive strength between the substrate and the recording layer.

With specific regard to claim 3, the Examiner deems this to be a mere duplication of parts of the base material layer 6 of Otomo. It has been held that "mere duplication of parts has no patentable significance unless a new and unexpected result is produced." Please see MPEP 2144.04 and *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to merely duplicate the base material layer 6 in order to provide extra water fastness and abrasion resistance for the recording layer.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Otomo (JP 2000-011448) in view of Ota (JP 2000-030302), machine translations included, as evidenced by applicants' admissions.

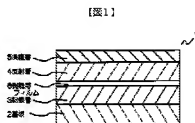
Otomo teaches the invention of Figures 2 and 3.



Otomo teaches that polycarbonate in the substrates of optical recording media are harmful for the environment [0002]. He plans to rectify this by making the substrate of the optical recording medium out of biodegradable resins [0005] and [0006]. He teaches that a biodegradable resin include polypropylene [0009] or BIONOLLE [0010],

which are also proposed in applicants' specification. The optical disc **1** has a substrate **2** of biodegradable resin and a recording layer **3** formed on both sides of the substrate [0018]. The recording layer **3** has a base material layer **6**. Otomo teach that the base material layer **6** is formed using the same plastic material as the substrate **2**. Applicants state in their specification at page 9, line 20 to page 10, line 4 that the non-hydrophilic film is preferentially composed of the same types of resin that is in the biodegradable substrate layer; therefore, the base material layer of Otomo is deemed to be made from an intrinsically non-hydrophilic (i.e. hydrophobic) material; however, Otomo fails to teach a protective layer for protecting the recording layer and a release layer provided between the substrate and the recording layer.

Ota teaches the device of Figure 1.



The device has a release layer **6** disposed in between the recording layer **3** and a protective layer **5**, which reads on the substrate of Otomo and applicants [0014].

Since Otomo and Ota are drawn to optical recording media; it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the release layer of Ota in between the substrate and recording layer of the medium of Otomo. The results of this combination would have been completely predictable to one having ordinary skill in the art of optical recording media; further,

each of the components would perform the same in combination as they did separately. A further motivation for combining these references can be found in Ota at [0021], which discloses that the release layer provides an extra level of security, wherein the information of the optical disc can be completely destroyed at the time of disposal; further, one of ordinary skill would recognize that this would allow for separation and potential recycling of the individual layers of the optical recording medium.

With regard to the addition of an adhesive layer in between the substrate and the recording layer, this would represent a mere duplication of the release layer 6 of Ota that was combined into the device of Otomo. It has been held that "mere duplication of parts has no patentable significance unless a new and unexpected result is produced." Please see MPEP 2144.04 and *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). Ota describes their release layer as being a double-sided adhesion film [0016]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to duplicate the film 6 for exfoliation, which reads on both applicants' adhesive layer and/or release layer, in order to adjust the amount of adhesive strength between the substrate and the recording layer.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Otomo (JP 2000-011448) in view of Ota (JP 2000-030302), machine translations included, as evidenced by applicants' admissions, as applied to claim 1 above, and further in view of Arai et al. (5,020,048).

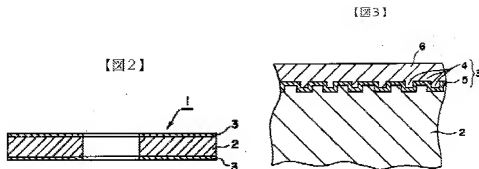
Otomo in view of Ota render obvious all of the limitations of applicants' claim 1 in section 4 above; however, they do not specifically disclose a protective layer for protecting the recording layer.

Arai et al. disclose a protective film **6** formed on a light incident surface of said transparent substrate, wherein said transparent substrate of Arai et al. reads on the base material layer of applicants' and also Otomo in view of Ota (col. 2, lines 35-38).

Since Otomo in view of Ota and Arai et al. are drawn to optical recording media; it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the protective film of Arai et al. with the optical disc of Otomo in view of Ota. The results of the combination would have been predictable; further, each of the elements would have performed the same in combination as they had separately. A further motivation for combining these references is that this will protect the transparent substrate or base material from scratches; furthermore, the fact that the protective layer is strippable will allow it to be replaced if the protective film becomes damaged.

6. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Otomo (JP 2000-011448) in view of Anderson (6,463,026) and Ota (JP 2000-030302), as evidenced by applicants' admissions.

Otomo teaches the invention of Figures 2 and 3.

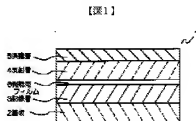


Otomo teaches that polycarbonate in the substrates of optical recording media are harmful for the environment [0002]. He plans to rectify this by making the substrate of the optical recording medium out of biodegradable resins [0005] and [0006]. He teaches that a biodegradable resin include polypropylene [0009] or BIONOLLE [0010], which are also proposed in applicants' specification. The optical disc 1 has a substrate 2 of biodegradable resin and a recording layer 3 formed on at least one side of the substrate [0018]. The recording layer 3 has a base material layer 6. Otomo teach that the base material layer 6 is formed using the same plastic material as the substrate 2. Applicants state in their specification at page 9, line 20 to page 10, line 4 that the non-hydrophilic film is preferentially composed of the same types of resin that is in the biodegradable substrate layer; therefore, the base material layer of Otomo may be made from an intrinsically non-hydrophilic (i.e. hydrophobic) material; however, Otomo fails to teach a printing layer provided on the opposite side of the substrate on which the recording layer is provided wherein the printing layer has a base material layer comprised of a non-hydrophilic film, a release layer provided between the substrate and the printing layer, and a protective layer for protecting the recording layer.

With regard to the fact that the Examiner is removing a recording layer from one side of the optical recording disc **1** and replacing it with a printing layer, it has been held that "omission of an element and its function is obvious if the function of the element is not desired." Please see MPEP 2144.04 and *Ex parte Wu*, 10 USPQ 2031 (Bd. Pat. App. & Inter. 1989). Making a dual-sided optical recording medium into a single-sided optical recording medium would not produce an unobvious result; further, one of ordinary skill in the art of optical recording media are well versed in preparing single-sided dual-recording layer media, dual-sided dual-recording layer media, or any other possible combination.

Anderson teaches a removable printable label for an optical disc (Abstract). The optical disc label **10** may be made of polypropylene, which reads on applicants' base material layer for the printing layer made of a non-hydrophilic film (col. 4, lines 53-63). On one side of the optical disc label **10** is a low-tack or repositionable adhesive **58**, which reads on applicants' release layer (col. 5, lines 13-15), and on the other side of the optical disc label may be a top coat **50** to assist in inscribing indicia, which reads on applicants' printing layer (col. 6, lines 20-30).

Ota teaches the device of Figure 1.



The device has a film 6 for exfoliation disposed in between the recording layer 3 and a protective layer 5, which reads on the substrate of Otomo and applicants [0014]. The film 6 for exfoliation is a double-sided adhesion film, which means that it reads on applicants' adhesive layer [0016].

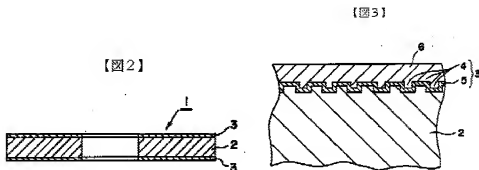
Since Otomo, Anderson, and Ota are drawn to optical recording media; it would have been obvious to one having ordinary skill in the art to combine the optical disc label, low-tack or repositionable adhesive, and top coat of Anderson and the film for exfoliation of Ota in between the recording layer and substrate of the previously modified optical disc of Otomo. The results of such a combination would have been predictable to one having ordinary skill; further, each of the elements would have performed the same in combination as they had separately. A motivation for making this combination is to provide a customizable surface to the use of the optical disc medium and to provide. A further motivation for combining these references can be found in Ota at [0021], which discloses that the release layer provides an extra level of security, wherein the information of the optical disc can be completely destroyed at the time of disposal; further, one of ordinary skill would recognize that this would allow for separation and potential recycling of the individual layers of the optical recording medium.

With regard to claim 4, it has been held that "mere duplication of parts has no patentable significance unless a new and unexpected result is produced." Please see MPEP 2144.04 and *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to merely duplicate the base material layer **6** in order to provide extra water fastness and abrasion resistance for the recording layer.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Otomo (JP 2000-011448) in view of Anderson (6,463,026) and Ota (JP 2000-030302), as evidenced by applicants' admissions.

Otomo teaches the invention of Figures 2 and 3.



Otomo teaches that polycarbonate in the substrates of optical recording media are harmful for the environment [0002]. He plans to rectify this by making the substrate of the optical recording medium out of biodegradable resins [0005] and [0006]. He teaches that a biodegradable resin include polypropylene [0009] or BIONOLLE [0010], which are also proposed in applicants' specification. The optical disc **1** has a substrate **2** of biodegradable resin and a recording layer **3** formed on at least one side of the substrate [0018]. The recording layer **3** has a base material layer **6**. Otomo teach that the base material layer **6** is formed using the same plastic material as the substrate **2**. Applicants state in their specification at page 9, line 20 to page 10, line 4 that the non-

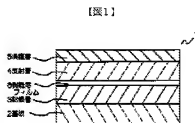
hydrophilic film is preferentially composed of the same types of resin that is in the biodegradable substrate layer; therefore, the base material layer of Otomo may be made from an intrinsically non-hydrophilic (i.e. hydrophobic) material; however, Otomo fails to teach a printing layer provided on the opposite side of the substrate on which the recording layer is provided wherein the printing layer has a base material layer comprised of a non-hydrophilic film, a release layer provided between the substrate and the printing layer, and a protective layer for protecting the recording layer.

With regard to the fact that the Examiner is removing a recording layer from one side of the optical recording disc **1** and replacing it with a printing layer, it has been held that "omission of an element and its function is obvious if the function of the element is not desired." Please see MPEP 2144.04 and *Ex parte Wu*, 10 USPQ 2031 (Bd. Pat. App. & Inter. 1989). Making a dual-sided optical recording medium into a single-sided optical recording medium would not produce an unobvious result; further, one of ordinary skill in the art of optical recording media are well versed in preparing single-sided dual-recording layer media, dual-sided dual-recording layer media, or any other possible combination.

Anderson teaches a removable printable label for an optical disc (Abstract). The optical disc label **10** may be made of polypropylene, which reads on applicants' base material layer for the printing layer made of a non-hydrophilic film (col. 4, lines 53-63). On one side of the optical disc label **10** is a low-tack or repositionable adhesive **58**, which reads on applicants' release layer (col. 5, lines 13-15), and on the other side of

the optical disc label may be a top coat **50** to assist in inscribing indicia, which reads on applicants' printing layer (col. 6, lines 20-30).

Ota teaches the device of Figure 1.



The device has a film **6** for exfoliation disposed in between the recording layer **3** and a protective layer **5**, which reads on the substrate of Otomo and applicants [0014]. The film **6** for exfoliation is a double-sided adhesion film, which means that it reads on applicants' adhesive layer [0016].

Since Otomo, Anderson, and Ota are drawn to optical recording media; it would have been obvious to one having ordinary skill in the art to combine the optical disc label, low-tack or repositionable adhesive, and top coat of Anderson and the film for exfoliation of Ota in between the recording layer and substrate of the previously modified optical disc of Otomo. The results of such a combination would have been predictable to one having ordinary skill; further, each of the elements would have performed the same in combination as they had separately. A motivation for making this combination is to provide a customizable surface to the use of the optical disc medium and to provide. A further motivation for combining these references can be found in Ota at [0021], which discloses that the release layer provides an extra level of security, wherein the information of the optical disc can be completely destroyed at the

time of disposal; further, one of ordinary skill would recognize that this would allow for separation and potential recycling of the individual layers of the optical recording medium.

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Otomo (JP 2000-011448) in view of Anderson (6,463,026) and Ota (JP 2000-030302), as evidenced by applicants' admissions, as applied to claim 2 above, and further in view of Arai et al. (5,020,048).

Otomo in view of Anderson render obvious all of the limitations of applicants' claim 2 in section 7 above; however, they do not specifically disclose a protective layer for protecting the recording layer.

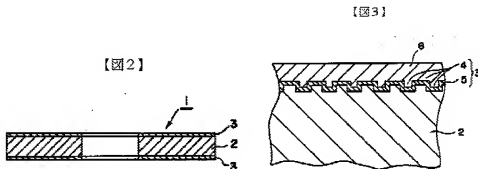
Arai et al. disclose a protective film 6 formed on a light incident surface of said transparent substrate, wherein said transparent substrate of Arai et al. reads on the base material layer of applicants' and also Otomo in view of Anderson and Ota (col. 2, lines 35-38).

Since Otomo in view of Anderson and Arai et al. are drawn to optical recording media; it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the protective film of Arai et al. with the optical disc of Otomo in view of Anderson. The results of the combination would have been predictable; further, each of the elements would have performed the same in combination as they had separately. A further motivation for combining these references is that this will protect the transparent substrate or base material from

scratches; furthermore, the fact that the protective layer is strippable will allow it to be replaced if the protective film becomes damaged.

9. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Otomo (JP 2000-011448) in view of Anderson (6,463,026) and Ota (JP 2000-030302), as evidenced by applicants' admissions.

Otomo teaches the invention of Figures 2 and 3.



Otomo teaches that polycarbonate in the substrates of optical recording media are harmful for the environment [0002]. He plans to rectify this by making the substrate of the optical recording medium out of biodegradable resins [0005] and [0006]. He teaches that a biodegradable resin include polypropylene [0009] or BIONOLLE [0010], which are also proposed in applicants' specification. The optical disc 1 has a substrate 2 of biodegradable resin and a recording layer 3 formed on at least one side of the substrate [0018]. The recording layer 3 has a base material layer 6. Otomo teach that the base material layer 6 is formed using the same plastic material as the substrate 2. Applicants state in their specification at page 9, line 20 to page 10, line 4 that the non-hydrophilic film is preferentially composed of the same types of resin that is in the

biodegradable substrate layer; therefore, the base material layer of Otomo may be made from an intrinsically non-hydrophilic (i.e. hydrophobic) material; however, Otomo fails to teach a printing layer provided on the opposite side of the substrate on which the recording layer is provided wherein the printing layer has a base material layer comprised of a non-hydrophilic film, a release layer in between the substrate and recording layer, a release layer in between the substrate and the printing layer, and a protective layer for protecting the recording layer.

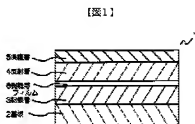
With regard to the fact that the Examiner is removing a recording layer from one side of the optical recording disc **1** and replacing it with a printing layer, it has been held that "omission of an element and its function is obvious if the function of the element is not desired." Please see MPEP 2144.04 and *Ex parte Wu*, 10 USPQ 2031 (Bd. Pat. App. & Inter. 1989). Making a dual-sided optical recording medium into a single-sided optical recording medium would not produce an unobvious result; further, one of ordinary skill in the art of optical recording media are well versed in preparing single-sided dual-recording layer media, dual-sided dual-recording layer media, or any other possible combination.

Anderson teaches a removable printable label for an optical disc (Abstract). The optical disc label **10** may be made of polypropylene, which reads on applicants' base material layer for the printing layer made of a non-hydrophilic film (col. 4, lines 53-63). On one side of the optical disc label **10** is a low-tack or repositionable adhesive **58**, which reads on applicants' release layer (col. 5, lines 13-15), and on the other side of

the optical disc label may be a top coat **50** to assist in inscribing indicia, which reads on applicants' printing layer (col. 6, lines 20-30).

Since Otomo and Anderson are drawn to optical recording media; it would have been obvious to one having ordinary skill in the art to combine the optical disc label, low-tack or repositionable adhesive, and top coat of Anderson with the previously modified optical disc of Otomo. The results of such a combination would have been predictable to one having ordinary skill; further, each of the elements would have performed the same in combination as they had separately. A motivation for making this combination is to provide a customizable surface to the use of the optical disc medium.

Ota teaches the device of Figure 1.



The device has a release layer **6** disposed in between the recording layer **3** and a protective layer **5**, which reads on the substrate of Otomo and applicants [0014].

Since Otomo and Ota are drawn to optical recording media; it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the release layer of Ota in between the substrate and recording layer of the medium of Otomo. The results of this combination would have been completely predictable to one having ordinary skill in the art of optical recording media; further,

each of the components would perform the same in combination as they did separately. Another motivation for combining these references can be found in Ota at [0021], which discloses that the release layer provides an extra level of security, wherein the information of the optical disc can be completely destroyed at the time of disposal; further, one of ordinary skill would recognize that this would allow for separation and potential recycling of the individual layers of the optical recording medium.

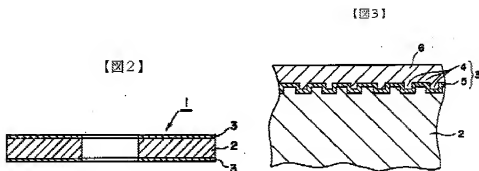
With regard to the addition of an adhesive layer in between the substrate and the recording layer as well as between the substrate and the printing layer, this would represent a mere duplication of the release layer **6** of Ota and the low-tack or repositionable adhesive **58** of Anderson that were combined into the device of Otomo. It has been held that "mere duplication of parts has no patentable significance unless a new and unexpected result is produced." Please see MPEP 2144.04 and *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). Ota describes their release layer as being a double-sided adhesion film [0016] and Anderson's release layer is an adhesive layer. It would have been obvious to one having ordinary skill in the art at the time the invention was made to duplicate the film **6** for exfoliation and the low-tack or repositionable adhesive **58**, either of which may read on both applicants' adhesive layer and/or release layer, in order to adjust the amount of adhesive strength between the substrate and the recording layer and/or the substrate and the printing layer.

With regard to claim 15, it has been held that "mere duplication of parts has no patentable significance unless a new and unexpected result is produced." Please see MPEP 2144.04 and *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to merely duplicate the base material layer 6 in order to provide extra water fastness and abrasion resistance for the recording layer.

10. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Otomo (JP 2000-011448) in view of Anderson (6,463,026) and Ota (JP 2000-030302), as evidenced by applicants' admissions.

Otomo teaches the invention of Figures 2 and 3.



Otomo teaches that polycarbonate in the substrates of optical recording media are harmful for the environment [0002]. He plans to rectify this by making the substrate of the optical recording medium out of biodegradable resins [0005] and [0006]. He teaches that a biodegradable resin include polypropylene [0009] or BIONOLLE [0010], which are also proposed in applicants' specification. The optical disc **1** has a substrate **2** of biodegradable resin and a recording layer **3** formed on at least one side of the substrate [0018]. The recording layer **3** has a base material layer **6**. Otomo teach that the base material layer **6** is formed using the same plastic material as the substrate **2**. Applicants state in their specification at page 9, line 20 to page 10, line 4 that the non-

hydrophilic film is preferentially composed of the same types of resin that is in the biodegradable substrate layer; therefore, the base material layer of Otomo may be made from an intrinsically non-hydrophilic (i.e. hydrophobic) material; however, Otomo fails to teach a printing layer provided on the opposite side of the substrate on which the recording layer is provided wherein the printing layer has a base material layer comprised of a non-hydrophilic film, a release layer in between the substrate and recording layer, a release layer in between the substrate and the printing layer, and a protective layer for protecting the recording layer.

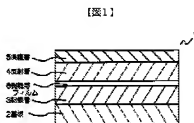
With regard to the fact that the Examiner is removing a recording layer from one side of the optical recording disc **1** and replacing it with a printing layer, it has been held that "omission of an element and its function is obvious if the function of the element is not desired." Please see MPEP 2144.04 and *Ex parte Wu*, 10 USPQ 2031 (Bd. Pat. App. & Inter. 1989). Making a dual-sided optical recording medium into a single-sided optical recording medium would not produce an unobvious result; further, one of ordinary skill in the art of optical recording media are well versed in preparing single-sided dual-recording layer media, dual-sided dual-recording layer media, or any other possible combination.

Anderson teaches a removable printable label for an optical disc (Abstract). The optical disc label **10** may be made of polypropylene, which reads on applicants' base material layer for the printing layer made of a non-hydrophilic film (col. 4, lines 53-63). On one side of the optical disc label **10** is a low-tack or repositionable adhesive **58**, which reads on applicants' release layer (col. 5, lines 13-15), and on the other side of

the optical disc label may be a top coat **50** to assist in inscribing indicia, which reads on applicants' printing layer (col. 6, lines 20-30).

Since Otomo and Anderson are drawn to optical recording media; it would have been obvious to one having ordinary skill in the art to combine the optical disc label, low-tack or repositionable adhesive, and top coat of Anderson with the previously modified optical disc of Otomo. The results of such a combination would have been predictable to one having ordinary skill; further, each of the elements would have performed the same in combination as they had separately. A motivation for making this combination is to provide a customizable surface to the use of the optical disc medium.

Ota teaches the device of Figure 1.



The device has a release layer **6** disposed in between the recording layer **3** and a protective layer **5**, which reads on the substrate of Otomo and applicants [0014].

Since Otomo and Ota are drawn to optical recording media; it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the release layer of Ota in between the substrate and recording layer of the medium of Otomo. The results of this combination would have been completely predictable to one having ordinary skill in the art of optical recording media; further,

each of the components would perform the same in combination as they did separately. Another motivation for combining these references can be found in Ota at [0021], which discloses that the release layer provides an extra level of security, wherein the information of the optical disc can be completely destroyed at the time of disposal; further, one of ordinary skill would recognize that this would allow for separation and potential recycling of the individual layers of the optical recording medium.

With regard to the addition of an adhesive layer in between the substrate and the recording layer as well as between the substrate and the printing layer, this would represent a mere duplication of the release layer **6** of Ota and the low-tack or repositionable adhesive **58** of Anderson that were combined into the device of Otomo. It has been held that "mere duplication of parts has no patentable significance unless a new and unexpected result is produced." Please see MPEP 2144.04 and *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). Ota describes their release layer as being a double-sided adhesion film [0016] and Anderson's release layer is an adhesive layer. It would have been obvious to one having ordinary skill in the art at the time the invention was made to duplicate the film **6** for exfoliation and the low-tack or repositionable adhesive **58**, either of which may read on both applicants' adhesive layer and/or release layer, in order to adjust the amount of adhesive strength between the substrate and the recording layer and/or the substrate and the printing layer.

11. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Otomo (JP 2000-011448) in view of Anderson (6,463,026) and Ota (JP 2000-030302), as

evidenced by applicants' admissions, as applied to claim 14 above, and further in view of Arai et al. (5,020,048).

Otomo in view of Anderson and Ota render obvious all of the limitations of applicants' claim 14 in section 10 above; however, they do not specifically disclose a protective layer for protecting the recording layer.

Arai et al. disclose a protective film 6 formed on a light incident surface of said transparent substrate, wherein said transparent substrate of Arai et al. reads on the base material layer of applicants' and also Otomo in view of Anderson and Ota (col. 2, lines 35-38).

Since Otomo, Anderson, Ota, and Arai et al. are drawn to optical recording media; it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the protective film of Arai et al. with the optical disc of Otomo in view of Anderson and Ota. The results of the combination would have been predictable; further, each of the elements would have performed the same in combination as they had separately. A further motivation for combining these references is that this will protect the transparent substrate or base material from scratches; furthermore, the fact that the protective layer is strippable will allow it to be replaced if the protective film becomes damaged.

Response to Arguments

12. The Examiner has withdrawn the rejections using the Matsuishi et al. reference because they are considered cumulative the present rejections and are not the closest

prior art rejections. The closest prior art rejections remain over the references Otomo, Anderson, Ota, and Arai et al.

13. Applicant's arguments filed 09/10/2009 have been fully considered but they are not persuasive.

With regard to claim 1, applicants argue that none of the references teach the new limitation of an adhesive layer in between the substrate and the recording layer.

The Examiner disagrees and notes that the film 6 for exfoliation of Ota can read on either **or** both of applicants' release layer or adhesive layer in between the recording layer and the substrate because the film 6 for exfoliation is a double-sided adhesion film [0016]. The Examiner deems the adhesive layer to be a mere duplication of parts of the film 6 for exfoliation of Ota. The motivation to duplicate this layer is to adjust the adhesive bond strength between the substrate and recording layer.

With regard to claim 2, applicants argue that none of the references teach the new limitation of an adhesive layer in between the substrate and the recording layer and also between the substrate and the printing layer.

The Examiner disagrees and notes that the film 6 for exfoliation of Ota reads on applicants' adhesive layer in between the recording layer and the substrate because the film 6 for exfoliation is a double-sided adhesion film [0016]. The Examiner has adjusted his rejections of sections 6-8 above to include Ota as a basis of the rejection due to this new limitation.

With regard to the adhesive layer in between the substrate and the printing layer, the Examiner notes that the low-tack or repositionable adhesive **58** of Anderson (col. 5, lines 13-15) can read on either **or both** of applicants' release layer or adhesive layer in between the printing layer and the substrate (col. 5, lines 13-15). The Examiner deems the adhesive layer to be a mere duplication of parts of the low-tack or repositionable adhesive **58** of Anderson. The motivation to duplicate this layer is to adjust the adhesive bond strength between the substrate and printing layer.

With regard to claim 14, applicants argue that none of the references teach the new limitation of an adhesive layer in between the substrate and the recording layer and also between the substrate and the printing layer.

The Examiner disagrees and notes that the film **6** for exfoliation of Ota can read on either **or both** of applicants' release layer or adhesive layer in between the recording layer and the substrate because the film **6** for exfoliation is a double-sided adhesion film [0016]. The Examiner deems the adhesive layer to be a mere duplication of parts of the film **6** for exfoliation of Ota. The motivation to duplicate this layer is to adjust the adhesive bond strength between the substrate and recording layer.

With regard to the adhesive layer in between the substrate and the printing layer, the Examiner notes that the low-tack or repositionable adhesive **58** of Anderson (col. 5, lines 13-15) can read on either **or both** of applicants' release layer or adhesive layer in between the printing layer and the substrate (col. 5, lines 13-15). The Examiner deems the adhesive layer to be a mere duplication of parts of the low-tack or repositionable

adhesive **58** of Anderson. The motivation to duplicate this layer is to adjust the adhesive bond strength between the substrate and printing layer.

To sum up, applicants' arguments are based upon new limitations added to their claims. The Examiner has responded by making a duplication of parts argument for each of applicants' adhesive layers seen in claims 1, 2, and 14. A release layer in and of itself is an adhesive layer, wherein the adhesive bond can be broken given some amount of force. The film **6** for exfoliation of Ota as well as the low-tack or repositionable adhesive **58** of Anderson are both described as adhesive layers. It would have been obvious to one having ordinary skill in the art at the time the invention was made to merely duplicate either or both of these layers in order to adjust the adhesive strength in between the layers adjacent to them. Adjusting adhesive strength would have a direct impact on how much force would be required to separate the various layers. One of ordinary skill would be aware of this and would understand how to vary adhesive strength.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GERARD T. HIGGINS whose telephone number is (571)270-3467. The examiner can normally be reached on M-Th 10am-8pm est. (Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Ruthkosky can be reached on 571-272-1291. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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